

REMARKS

Claim Amendments

Support for the amendment in claims 2 and 3 can be found, for example, on page 6, line 1.

The Noted Claim Informalities

Claim 2 is amended as suggested. The same amendment is also made in claim 3.

Claim 12 is noted because the specific secondary amines listed are allegedly redundant because they are all dialkylamines. In this regard, applicants bring the attention of the Examiner to MPEP § 2173.02 which states that

Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims.

...

The use of Markush claims of diminishing scope should not, in itself, be considered a sufficient basis for objection to or rejection of claims. ...

Similarly, the double inclusion of an element by members of a Markush group is not, by itself, sufficient basis for objection to or rejection of claims. ... The mere fact that a compound may be embraced by more than one member of a Markush group recited in the claim does not necessarily render the scope of the claim unclear. For example, the Markush group, "selected from the group consisting of amino, halogen, nitro, chloro and alkyl" should be acceptable even though "halogen" is generic to "chloro." (Emphasis added.)

Thus, as the MPEP provides, the double inclusion of compounds by their being embraced by more than one member of a Markush group, e.g., in this case double inclusion of the specific dialkylamines by their specific recitation and by their inclusion in dialkylamines generically, does not render a claim indefinite.

Accordingly, reconsideration is requested.

The First Rejections Under 35 USC § 103

The claims are rejected over Bower as allegedly unpatentable.

Bower teaches reacting a polyamidoamine with an epihalohydrin and reacting the product with amine additive which results in crosslinking after heating. See abstract. The amine additive may be ammonia among other things. See page 3, last paragraph. Ammonia however, is not a cross-linking compound with two or more cross-linking functional groups. Accordingly, the claims are not

obvious.

Additionally, even though not necessary to establish patentability, applicants point to the examples in the specification. Comparative example 1 reacts dimethylamine (the reference teaches polyamidoamine, which has a secondary amine group which reacts, see page 2, lines 10-21 of the reference), ammonia and epichlorohydrin to obtain a product referred to as Additive 9. The examples in accord with the invention in addition react the same ingredients as in the comparative example with a cross-linking compound with two or more cross-linking functional groups to give additives 1-8.

Table 1 summarizes transmissometry results of the examples in accord with the claims with comparative example 1 by testing the mutual interaction between 4 inks (1007, 1011, 1012, and BC 121) and the respective additives. See pages 19-20 for description of tests. Higher transmittance values mean higher water resistance of the recording medium, i.e., of the ink in combination with the additive. See top of page 18. The results demonstrate that the transmittance is higher of each ink in combination with any of the additives in accord with the claims than with the additive of comparative example 1, and especially higher with inks 1011, 1012, and BC 121.

Table 2 summarizes image durability and resolution of images prepared with commercial printers using the recording mediums of examples 1-8 and comparative example 1. See pages 20-21 for description of tests. The image durability results show that in comparative example 1 blurring was observed and was sufficient to cause problems, while in all the tests in accord with the claims, either no blurring was observed or some blurring was observed which was practically insufficient to cause a problem. The resolution results demonstrate that in comparative example 1 slight blurring and slightly wider lines were observed, while in seven of the eight examples in accord with the claims good results with little blurring and narrow lines were obtained while in the remaining example in accord with the claim comparable results were obtained with comparative example 1.

The results demonstrate significant differences between the products obtained in comparative example 1 and in examples in accord with the claims.

The claims are rejected over Yamanaka as allegedly unpatentable.

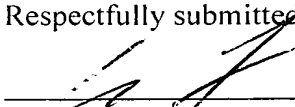
Yamanaka also teaches an additive having a secondary amine, ammonia and epichlorohydrin. See abstract. The Office Action admits that the reference does not disclose any crosslinking agent, but asserts that such crosslinking would occur based on the state of the art. Because the reference

does not teach or suggest a cross-linking compound with two or more cross-linking functional groups, the claims are not obvious.

Additionally, although once again not necessary, applicants point to the comparison of comparative example 1 with examples in accord with the claims discussed above. Comparative example 1 corresponds to the teachings of Yamanaka.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



Csaba Henter, Reg. No. 50,908
Anthony J. Zelano, Reg. No. 27,969
Attorneys for Applicant(s)

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
Arlington Courthouse Plaza 1, Suite 1400
2200 Clarendon Boulevard
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

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